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10/709,810	05/28/2004	Ramesh NAGARAJAN	119016	3809

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EXAMINER
WASHINGTON, JAMARES

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NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
Office Action Summary	10/709,810	NAGARAJAN ET AL.
	Examiner	Art Unit	
	Jamares Washington	2625 .	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after t he mailing date of this communication, even if timely filed, may re duce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _17 December 2007_.

2a)☒ This action is **FINAL.** 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-22_ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-22_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   Amendments and response received on December 17, 2007 have been entered. Claims 1-22 are currently pending with amendments to claims 1, 13, and 22 being made to even further distinguish applicant's invention over the art of record. Applicant's amendments and response are addressed hereinbelow.

Claim Rejections - 35 USC § 112

2.   Claims 1-12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 recites "...a controller that controls the alteration circuit to perform at least some required alterations of the electronic data...". However, referring to the original specification at ¶ [6], [19-21], [24-25] and Fig. 2, applicant discloses the "processor" and "alteration circuit" being two separate entities. The "required processing" is performed by the processor whereas the alterations are performed during idle time by the alteration circuit. Therefore it appears that

applicant is not in possession of the claimed "alteration circuit...perform[ing] at least some required alterations...". Claim 1 should be corrected to indicate the required processing being performed by the processor and the alteration circuit only performing optional alterations when sufficient idle time exists as disclosed in the original specification. Claims 2-12 are dependent on claim 1 and are thus rejected for the reasons indicated above.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 13, 14, 18 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoshihisa Kagaya et al (US 5119471).

Regarding claim 13, Kagaya et al discloses a method of processing electronic data, comprising:

processing the electronic data with required processes (Col. 2 lines 60-63 wherein the

receiving processing means makes determination as to whether received character data needs

modification processing);

storing the electronic data (Col. 2 lines 63-65 wherein if it is determined that the

modifications are needed, the data is stored in character data buffer); and

controlling the stored electronic data, following at least some of the required processes,

by determining whether the stored electronic data is awaiting further required processes unable

to be performed at that time following the performed required processes (Col. 2 lines 63-67

wherein the data is stored following the receiving processing but prior to a required printing

processing which is will not be performed until after the modification processing has taken place

and the data is sent to the dot pattern data memory as explained at Col. 2 lines 45-59),

determining if the stored electronic data will be waiting for a sufficient period of time between

the required processes (Col. 2 lines 60-63 wherein the determination of whether the character

data needs modification processing thus determines if the character data will be stored; If the

character data is stored in the character data buffer then the determination is made that the data

will be stored until the modifications have taken place which is a "sufficient period of time" for

modification processing); and

altering the stored electronic data after determining that the stored electronic data will be

waiting for the sufficient period of time (Col. 2 lines 65-67 wherein the modification processing

is preformed following the data being stored in the character data buffer which, as stated

previously, indicates the data will be stored for a sufficient period of time which is, in this case,

until all modification processing is completed and the data is sent to the dot pattern data

memory).

Regarding claim 14, Kagaya discloses the method of processing electronic data of claim

13, further comprising:

inputting an image that is converted into the electronic data ("In the receiving processing

PI, the data received from a host system is stored in the receiving buffer 1" at column 3 line 56);

and

outputting the electronic data to an output terminal (Fig. 1 output from P4 printing

processing to numerals 7 and 8 print head control and space motor control, respectively).

Regarding claim 18, Kagaya et al discloses the method of processing electronic data of

claim 13, further comprising:

controlling the electronic data to be processed after the electronic data has been requested

by an output terminal (Col. 1 lines 38-40 indicate the receiving processing occurs after the

character data is received from a host for printing), but prior to the electronic data being

transmitted to the output terminal, the processing including the altering of the electronic data

(Modification processing occurs before character data is sent to the dot pattern data memory for

printing as previously rejected in claim 13 above. The character data is sent to the output

terminal after modification processing as indicated in Fig. 5A).

Regarding claim 22, Kagaya et al discloses a method of using a multifunctional device that includes a processor (Fig. 1 P1), a memory (Fig. 1 numeral 2), a controller (Control apparatus depicted in Fig. 1) and an altering device (Fig. 1 P2), comprising:

processing electronic data with required processes using the processor (see rejection of claim 13);

storing the electronic data in the memory (see rejection of claim 13); and

controlling the stored electronic data, following at least some of the required processes, using the controller to determine whether the stored electronic data is awaiting further required processes unable to be performed at that time following the performed required processes, determining if the stored electronic data will be waiting for a predetermined sufficient period of time between the required processes (see rejection of claim 13); and

altering the stored electronic data when it is determined that the stored electronic data will be waiting for the predetermined sufficient period of time (see rejection of claim 13).

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshihisa Kagaya et al (US 5119471) in view of King-Sang Lam et al (US 6417014 B1).

Regarding claim 15, Kagaya et al discloses the method of processing electronic data of

claim 13, further comprising:

determining whether the sufficient period of time exists when the electronic data is stored

(see rejection of claim 13 wherein the determination is made if the electronic data is stored in the

character data buffer), the sufficient period of time being a duration of time that the electronic

data is stored without being processed (Col. 2 lines 63-65 wherein the data is stored and

processed by the modification processing means only during an idle time of printing).

Kagaya et al fails to disclose using a predetermined value to determine if the

predetermined time exists.

However, Lam teaches, in the same field of endeavor of idle time processing, using a

predetermined value to determine whether a sufficient period of time exists ("The automatic

process controller 40 receives an idle time input...manually from an operator..." at column 4 line

8).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to input a predetermined amount of idle time or "storage wait time" manually as

taught by Lam in the apparatus as disclosed by Kagaya where the idle time is used for altering

image data to insure sufficient idle time is present for the given tasks. The user would be able to

provide more or less idle time to the apparatus according to the enhancements needed.

Regarding claim 16, Kagaya et al discloses the method of processing electronic data as

rejected in claim 15, further comprising:

presetting the predetermined value (see rejection of claim 15), and using the

predetermined value to automatically control the altering of the electronic data after it is

determined that the sufficient period of time exists ("...the modification processing is performed

utilizing an idle time of the processing" at Col. 2 line 65, Kagaya).

Regarding claim 17, Kagaya et al discloses the method of processing electronic data of

claim 15, further comprising:

controlling the electronic data to be processed prior to the electronic data being stored in

the memory (see rejection of claim 13), the processing including the altering of the electronic

data by compressing the electronic data (Col. 2 lines 9-11 wherein the character is compressed).

7.   Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kagaya et al in

view of Reiner Eschbach et al (US 7102792).

Regarding claim 19, Kagaya et al discloses the method of processing electronic data of

claim 13.

Kagaya fails to disclose or suggest altering the electronic data to include a change in one

of at least sharpness, contrast, color and exposure of the electronic data.

Eschbach, in the same field of endeavor of modifying image data to affect a more

pleasing appearance, teaches the above attributes as well known attributes of an image that

enhance image quality ("A pleasing image can be defined as an image having good color, good

contrast, good sharpness and good exposure" at column 1 line 22).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to provide the method of processing electronic data as disclosed by Kagaya with the

capabilities of altering the well-known attributes of sharpness, color, contrast, and exposure of

the image data as taught by Eschbach to afford a more pleasing output image.

8.   Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kagaya et al in

view of Giovanni Giuffrida et al (US 20030028503 A1).

Regarding claim 20, Kagaya et al discloses the method of processing electronic data of

claim 13.

Kagaya fails to disclose or suggest extracting metadata from the electronic data.

Giuffrida, in the same field of endeavor of manipulation of electronic documents, teaches

extracting metadata from electronic data ("The second processing element is configured to

receive substantially format-invariant data files, extract spatial layout facts, and provide the

extracted spatial layout facts to a reasoning element. A database is configured to simultaneously

provide spatial layout rules to the reasoning element; the spatial layout rules are used to extract

the metadata from the substantially format-invariant data file" at ¶ [9], Giuffrida).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to utilize extracting of metadata from electronic data as taught by Giuffrida in the

method of processing electronic data as disclosed by Kagaya to obtain information from the

image of which processes would most likely enhance the image, thereby only altering the

attributes of the image which would need the alterations.

9.   Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kagaya et al in

view of Barry Appelman (US 6112250 A).

Regarding claim 21, Kagaya discloses the method of processing electronic data of claim

13, further comprising:

altering the electronic data during the sufficient period of time (see rejection of claim 13).

Kagaya fails to disclose altering the electronic data during the sufficient period of time to

include one of at least reformatting the electronic data into a summary page and recompressing

the electronic data after the electronic data is stored.

Appelman, in the same field of endeavor of manipulating electronic data to enhance data

attributes, teaches a compression circuit that recompresses electronic data (Fig. 3 numeral 26

recompressor. "The recompressor 26 re-compresses the decompressed data using any algorithm

that provides a better compression ratio than the original compression" at column 3 line 55).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to provide the modification processing circuit of the multifunctional device as

disclosed by Kagaya with a compression circuit that recompresses electronic data as taught by

Appelman to "provide a better compression ratio than the original compression" (column 2 line

56, Appelman).

Allowable Subject Matter

10.   Claim 1 would be allowable if rewritten or amended to overcome the rejection(s) under

35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claims 1-12 have been thoroughly searched, but examiner found neither prior art cited in

its entirety, nor based on the prior art, found any motivation to combine any subsequent prior art

which teaches a controller that controls the [processor] to perform at least some required

[processing] of the electronic data, determines whether the stored electronic data is awaiting

further required action unable to be performed at that time following at least some of the

performed required [processes], determines if the stored electronic data will be waiting for a

sufficient period of time, and controls the alteration circuit to perform optional alterations of the

stored electronic data when the controller determines that the sufficient period of time exists.

Response to Arguments

13.   Applicant's arguments, see remarks, filed on December 17, 2007, with respect to Claim 1

have been fully considered and are persuasive. The previous rejection of claim 1 has been

withdrawn.

14.   Applicant's arguments filed December 17, 2007 regarding claims 13 and 22 have been

fully considered but they are not persuasive.

Applicant's remarks: Kagaya fails to disclose or suggest a controller that controls the alteration

circuit to perform at least some required alterations of the electronic data, determines whether the

stored electronic data is <u>awaiting further required action unable to be performed at that time</u>

following at least some of the performed required alterations... and controls the alteration circuit

to perform <u>optional</u> alterations of the stored electronic data when the controller determines that

the sufficient period of time exists.

Examiner's response: Kagaya teaches, as recited in the rejection of claim 13 above, a

determination of whether the stored electronic data is awaiting further required action unable to

be performed at that time; if the character data is stored in the character data buffer then the

determination is made that the data will be stored until the modifications have taken place which

is a "sufficient period of time" for modification processing and also indicates the data will be

stored, a not undergo the required printing processing which is unable to be performed, until the

modifications have taken place. Regarding the argument that the alteration circuit performs

optional alterations, claims 13 and 22 fail to recite any such subject matter therefore this

argument is moot.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jamares Washington whose telephone number is (571) 270-1585.

The examiner can normally be reached on Monday thru Friday: 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, King Poon can be reached on (571) 272-7440. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

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like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jamares Washington
Junior Examiner
Art Unit 2625

JW

February 21, 2008

KING Y. POON
SUPERVISORY PATENT EXAMINER